

REMARKS

Reconsideration and allowance of the subject application are respectfully requested.

Upon entry of this Amendment, claims 1-6 are pending in the application. Applicant respectfully submits that the pending claims define patentable subject matter.

Priority

Applicant will submit a verified translation of the priority document if it is deemed necessary to overcome prior art applied in a rejection of record.

Claim Objections -- 35 U.S.C. § 132

The Examiner objected to the Amendment filed 7/11/2005 under 35 U.S.C. § 132 because it allegedly introduces new matter into the disclosure. Specifically, the Examiner maintains that the addition of limitations: "series of sequential transactions" and "if a previous transaction has succeeded" in claim 1 are not supported by the original disclosure. However, Applicant respectfully disagrees with the Examiner's position.

For example, page 3, line 12 of the specification describes that the supplier and the consumer are connected by a chain of communication channels. Line 28 of the same page describes that independent transactions are initiated for each link of the chain of communication channels. Thus, a series of transactions are set up between a supplier and a consumer with each channel forming a link in the chain which is an independent transaction.

Moreover, claim 4 of the specification filed on April 13, 2001 also supports the added limitations. In the originally filed claim 4, the feature "initiating transactions containing said

information with said clients if said transaction has succeeded” is recited. This implicitly means that one waits to assert that the transaction has succeeded before initiating the next transaction with the next link.

Therefore, for at least the reasons set forth above, Applicant respectfully submits that the description provides support for the language added by the Amendment filed September 11, 2005.

Claims 1-3 and 5 stand objected to because of informalities. Applicants have amended the claims as suggested by the Examiner, and therefore respectfully request that the Examiner remove the objection.

Claim Rejections -- 35 U.S.C. § 112

Claim 1 stands rejected under 35 U.S.C. § 112, first paragraph, as allegedly failing to comply with the written description requirement. Specifically, the Examiner argues that the specification does not contain subject matter to implement the limitations "a series of sequential transactions" and "if a previous transaction has succeeded" as recited by claim 1. Applicant respectfully disagrees with the Examiner's position.

As shown above, page 3 of the specification describes a supplier and a consumer being connected by a chain of communication channels. Metaphorically, a chain is a series of links. Thereafter it is described that independent transactions are initiated for each link of the chain of the communication channels. Applicant again submits that this description supports the features cited by the Examiner.

Moreover, it is an aspect of the invention to provide an asynchronous communication system which also has ACID properties. As the specification notes on page 3, it is difficult to combine the asynchronous aspect of the transfer with transactions which are essentially synchronous. In a synchronous system, a transaction can be initiated in guaranteed compliance with ACID properties from the supplier to the consumer. However, in an asynchronous system, the actions that guarantee these properties must interact with each other in a particular reliable way. The Examiner notes that the ACID properties of atomicity, coherence, isolation and durability are closely interrelated. However, interrelated does not mean inseparable or coordinated. Moreover, the Examiner maintains that page 4, lines 33-35 of the specification shows parallel instead of sequential transactions. However, Applicant submits that parallel transactions in sequential order or a series of transactions are not mutually exclusive. In other words, there can be multiple series of transactions going on in parallel for example. Therefore for the above reasons, Applicant submits that the features cited by the Examiner have support in the specification.

Claims 2, 3, 4 and 6 stand rejected under 35 U.S.C. § 112, second paragraph, as allegedly being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention. Applicant has amended claims 2, 3, 4 and 6 in order to improve clarity, and respectfully requests that the Examiner withdraw the rejections.

Claim Rejections -- 35 U.S.C. § 103

Claims 1-6 stand rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Schaefer (USPN 6,157,927) in view of "ObjectStore Java API User Guide" and Leymann (USPN 6,012,094). Applicant respectfully traverses this rejection.

No motivation to combine the Schaefer and Leymann references.

There is no motivation to combine the cited Schaefer and Leymann references. The Examiner maintains that the combination would facilitate handling a series of sequential transactions because the sequential transactions would support processing of information in a sequential manner. Additionally, the Examiner asserts that the series of sequential transactions would enhance providing information from one entity to another. However, Applicant respectfully disagrees with this motivation or suggestion to combine.

The Schaefer reference is directed to combining transactional environments. Specifically, Schaefer is concerned with combining what would otherwise be disparate transactional processing systems and environments, such as providing interoperability between windows based clients, e.g., MS DTC, and an X/Open XATMI-compliant system. The MS DTC environment cannot currently interoperate with resources on remote server controlled by an X/Open XATMI compliant transaction manager. Since there is a large installed base of client server applications that are built upon an X/Open XATMI compliant transaction manager, it is desirable to provide a method and apparatus that enable an MS DTC to include such service in a

global transaction that it controls. Thus, Schaefer is concerned with providing interoperability between servers in disparate transactional processing systems and environments.

In contrast, Leymann is concerned with ensuring the outcome atomicity of a collection of transactions. Specifically, Leymann is concerned with optimizing communication traffic for coordination of transactions with optimizing concurrency behavior and throughput of a collection of transactions. Leymann accomplishes this by grouping transactions and then processing the group as a set of chained strata. The Examiner will thus appreciate that one faced with the problem of Schaefer, i.e., combining disparate transactional processing systems and environments, would not look to the solution of Leymann for an answer, because Leymann is only concerned with improving the operation of multiple transactions within one transactional system or environment.

Even assuming *arguendo* that the Schaefer and Leymann references may be combined, the combination still does not teach all features recited by the claims. For example, claim 1 recites the limitation of transmitting information by means of independent transactions. The Examiner repeatedly maintains that Schaefer discloses multiple transactions including transmitting information by means of independent transactions by virtue of both the non-global and global transactions described in Schaefer. However, Applicant respectfully disagrees with the Examiner's position.

At col. 2 and col. 3, Schaefer shows both non-global and global transactions. The non-global transaction acts as a traditional transaction, but the work is distributed in a client/server

manner. Thus, a client is connected to a server and the server interacts with a database. This shows one transaction. The global transaction, discussed in Schaefer, consists of multiple, coordinated database updates. However, again, even in such a distributed transaction processing environment, there is a single transaction that is performed by multiple application programs that access one or more databases on one or more computers across a network. This is what it means to be distributed.

For both the non-global and global transactions, Schaefer uses the example of a travel agent requesting an airline reservation, a car reservation, and a hotel reservation. It is clear from the description at cols. 2 and 3 that all of the reservations must be coordinated. For example, if a flight is unavailable, the hotel and car reservations are not needed. Thus, Schaefer conceives of this is one transaction, i.e., a single transaction. However, it is noted that the airline, car and hotel databases are on different systems, that is, they use different databases to store their data. In the global system there is a global transaction and subordinate transactions of the global transactions. This subordination suggests that the transactions are not indeed independent but rather are coordinated and rely on the global transaction. Thus, Schaefer does not show transmitting information by means of independent transactions as required by claim 1.

Claim 1 also recites the limitation that the supplier and the consumer are connected by a chain of communication channels. The Examiner again points to the non-global and global transactions as allegedly illustrating a chain of communication channels. However, Applicant again respectfully disagrees with the Examiner's position.

As noted above with respect to the non-global transaction situation, work is distributed in a client/server manner. In other words, a client contacts a server which interacts with a database in order to perform the single transaction. Thus, there is only one communication channel between the supplier and the consumer.

In the global transaction system, a client contacts a supplier, e.g., a travel agent, seeking air, car and hotel reservations. In this single transaction, the client interacts with an air server which has its own air database for airline tickets. The client interacts with another server that interacts with a car database, and the client interacts with another server that interacts with a hotel database. Thus, there are three different databases, and each must be coordinated with the others to provide ACID properties to the single transaction. In this system, the Examiner will appreciate that there is not a chain of communication channels. While there may be three different communication channels, i.e., one between the consumer and the air server, one between the consumer and the car server, and one between the consumer and the hotel server, these are not formed in a chain. A chain has links, one connected to another. Thus, Schaefer at cols. 2 and 3, in his discussion of non-global and global transactions, does not show, teach or suggest a chain of communication channels which connects a supplier and a consumer, as required by claim 1. Accordingly, this feature is not shown by Schaefer.

Moreover, since Schaefer does not show a chain of communication channels, it is logically impossible for Schaefer to show asynchronous transactions that are setup between a supplier and a first communication channel of said chain, between each of the communication

channels of said chain, and between a last communication channel of said chain and the consumer, as also required by claim 1.

Thus, for at least the reason discussed above, Applicant respectfully submits that claim 1 contains patentable features over the Schaefer, ObjectStore, and Leymann combination, and therefore respectfully requests that the Examiner withdraw the rejection to claim 1.

Claims 2 and 3 are patentable based on their dependencies.

Claim 4 recites the requirement that each communication channel has a set of clients which are other communication channels or consumers. The Examiner suggests that this limitation is met by virtue of the teachings of Schaefer at col. 8, lines 25-67. However, Applicant respectfully disagrees with the Examiner's position.

At col. 8, lines 25-67, Schaefer describes a resource manager that receives XATMI service requests and directives issued by a first transaction manager for a given single global transaction. The resource manager then translates the service requests and the directives into service requests for an OSI TP protocol machine. By virtue of this system, the remote server is able to appear to the first transaction manager as simply another local resource within the transaction processing environment. This description does not show or teach a communication channel which has a set of clients. For example, if, *arguendo*, the first transaction manager may be viewed as a communication channel, it only has one client, that is, the resource manager. On the other hand, if the resource manager may be viewed as a communication channel, it only has one client, the OSI TP protocol machine. Therefore, Schaefer does not teach or suggest a

communication channel having a set of clients which are other communication channels or consumers, as required by claim 4. Therefore, claim 4 contains patentable features over the Schaefer, ObjectStore, and Leymann combination, and Applicant respectfully requests that the Examiner withdraw the rejection to claim 4.

Claim 5 contains patentable features based on its dependency.

Claim 6 recites features substantially similar to those of claim 4, discussed above. Therefore, claim 6 contains patentable features over the combination of Schaefer, ObjectStore and Leymann, for similar reasons, and Applicant respectfully requests the Examiner to withdraw the rejection.

Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

AMENDMENT UNDER 37 C.F.R. § 1.111
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The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,



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